

UNDERSTANDING ANIMAL PAIN

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None of us as human beings appreciate the experience of being in pain, and it is a reasonable assumption that all of us can vividly recall the most painful experience(s) of our lives. It gets hard wired into our memory and becomes something we never would choose to experience again, nor something we will ever forget.

And in reality, pain can be considered for both man and animals to be a useful experience that has evolved through evolution:

- It creates learned avoidance
- It modifies behavior
- It changes physiology
- It promotes healing
- It reduces likelihood of recurrence and can promote recovery
- It is a survival mechanism

But I don't think we as humans think it serves any useful purpose at the time, and if the option of taking some form of pain relief is available, realistically we would all opt in. Just consider for a moment the most popular human medications of modern time – aspirin and paracetamol – that together constitute a multi billion dollar industry directed at the issue of pain management.

But in specific regards to animal pain, it was only in the 1960's and 70's that that our attitudes toward animal pain began evolving and they are still evolving as we have seen in regards to mulesing due to the interest in the issue from animal welfare and animal rights groups.

And the key reason, the fundamental reason why this is the case is that pain in animals is extremely difficult to measure. A fact we all understand.

It was only in the 1980's that we had a prominent dean of UK vet school stating that "In the absence of any direct way to scientifically measure the subjective experience of pain in animals, one could not prove that animal pain exists, and therefore it does not".

Now this sounds like an extremely archaic attitude, but just think for a minute about livestock production. Why have I as a veterinarian only once (albeit in only 7 years of practice) been asked by a client about options for pain relief in cattle?

The simple reason is that pain is extremely difficult to measure, very subjective and seldom at the forefront of our thoughts.

The latest scientific research indicates that all animals experience some form of pain, but due to the hard wired nature of their nervous systems, the sensitivity of their pain receptors, the different levels brain function in different species - the amount of pain experienced is highly variable.

Add to this the fact the pain in juveniles is generally considered less severe than in adults for equivalent levels of noxious stimuli, and that pain between individuals of the same species of the same age also varies, and that there are sex variations and variations between specific breeds the picture becomes even more complicated and subjective.

Due to the fact that science is yet to have evolved to the point where we can easily make physiological quantitative assessments on these aspects of animal pain, we are left with indirect measures, the use of scientific judgement, and extrapolation from man and common sense as tools to assess and manage pain in animals.

For these reasons, the occurrence or anticipation of animal pain is now considered a vitally important component of the animal welfare message.

However dangerous extrapolations can be, rightly or wrongly PETA have targeted mulesing because the logical extrapolation from pain in man is that this procedure would hurt like hell. And it is this fact, it is this extrapolation that is

very easily made by a large component of society that includes highly educated people.

And I can't tell you (and I don't think anyone can) on a scale of 1 to 10 how much mulesing hurts or what the human equivalent is.

But unlike the science, the animal welfare debate is not complex when it comes to animal pain. It is simple:

Society is now at a point in regards to a whole range of procedures that we perform on animals so that:

- **if they are capable of extrapolating (rightly or wrongly) from an equivalent human experience**
- **if they perceive that the procedure would hurt**

They expect the procedure to be avoided or at an absolute minimum managed in a manner they understand that human pain can be managed.

But I can hear you say that agriculture is an exception and it probably is. Veterinary clients (including farmers) expect absolutely that pain in their working dog or child's cat will be managed to the highest possible standards, - I see this every day. And yet they do not have the same expectations, or compassion for their farm animals. So there is a certain element of human psychology and lack of understanding involved. We need a mind shift for pain in livestock species to be taken more seriously.

From a veterinary perspective, managing pain in livestock species is very different and faces enormous challenges:

1. To start with, many of the pain medications of companion animals and humans simply do not have the efficacy or proven efficacy in farm animal species – particularly cattle and sheep. To a lesser extent horses, and pigs and poultry.
2. Secondly, there are very few analgesics (pain relieving products) (particularly systemic (ie not local)) registered for use in food producing species – and little if any

investment and research at least within this country into developing medications that will work – this is simply an issue of market conditions and the likely potential financial return following the investment that is required by the large multinationals.

3. Thirdly, MRL's, ESI's (withhold periods for both for meat and produce) can make use prohibitive and limit usage. For example, milk withhold periods should an drug be used in a lactating cow.

4. Fourthly, the economic value of the animal and cost of medication, and requirement for veterinary involvement, OH&S risks, and potential for misuse within the human population complicate the situation.

5. Fifthly – and this is still the case – that the veterinary undergraduate curriculum for livestock species within universities pays little attention to pain management. So in terms of the veterinary profession itself – sometimes pain management doesn't enter our consciousness when undertaking procedures.

In modern farming, procedures on animals involving pain can be performed for a number of reasons, but most commonly this either involves

- Activities to improve human safety or likelihood of human injury
- Activities to prevent injury to fellow members of the flock or herd
- Procedures to improve short or long term animal health
- Procedures aimed at preventing disease (as in the case of mulesing)
- Procedures to improve product quality be that meat, milk, wool etc.
- Procedures to improve management efficiency

The AVA has particular policies regarding a number of procedures performed on animals, and most make specific reference to the need to pursue alternatives or to implement appropriate peri-operative or post operative pain management activities.

Examples include our policies on dehorning, cattle and sheep tail docking, castration, speying, branding, laparoscopic AI.

So from the AVA's perspective we only support painful husbandry procedures when there are specific scientifically justified benefits to doing so and where there are no viable alternatives. So we are clearly opposed to tail docking of cattle simply because all available research indicates that there is no scientific justification for doing so, whereas with dehorning the benefits are clear. It is issues such as tail docking of cattle that certainly leave the cattle industry exposed to the likes of PETA and other animal rights and animal welfare groups.

We consider pain management to be successful if the degree of pain does not prevent an animal from engaging in relatively normal activities, such as eating, sleeping, ambulating, grooming, and interacting with other members of its species or its care givers.

Even though complete elimination of pain in individual animals may not be obtainable or desirable, prevention and alleviation of animal pain and suffering as an important and tenable therapeutic goal that we all (vets and farmers) should consider.

Finally, on the 29th of August the AVA issued a media release supporting the release of trisolfen and the issuing of a permit via the AVPMA. We took some flack for this release as it was perceived that we were endorsing a particular product. But I stand by this release very strongly:

- I stand by it because we must encourage any development of livestock pain relief products – there are so few that we have to congratulate successes.
- I stand by this release because any product that has the potential to alleviate pain in animals should be generously welcomed
- I stand behind this release because pain relief in livestock as for too long been at the back of our minds and a poor second cousin to pain relief in man and companion animals
- I stand my this release because for too long the divide between animal and human medicine has been too wide, and research outcomes have not been transferred for the benefit of animals

Some within the veterinary profession were surprised that the AVA was making such a statement and believed it insinuated the AVA endorsement of this particular

product. I need to be very clear and state that we do not endorse any particular product above another. But what we must do, given the growing importance of animal pain, the lack of products developed for managing pain in livestock and the potential for this product to significantly reduce pain, is sing this companies praise, congratulate them on what I feel is **one of the most significant advances in the management of livestock animal pain for many years.**

So I would again like to congratulate Animal Ethics for the development of the product it wish it the very best in this application and any future application that it may hold.

The AVA must support and does support and will continue to support any research and product development associated with allieviating pain in animals.

Thank you.